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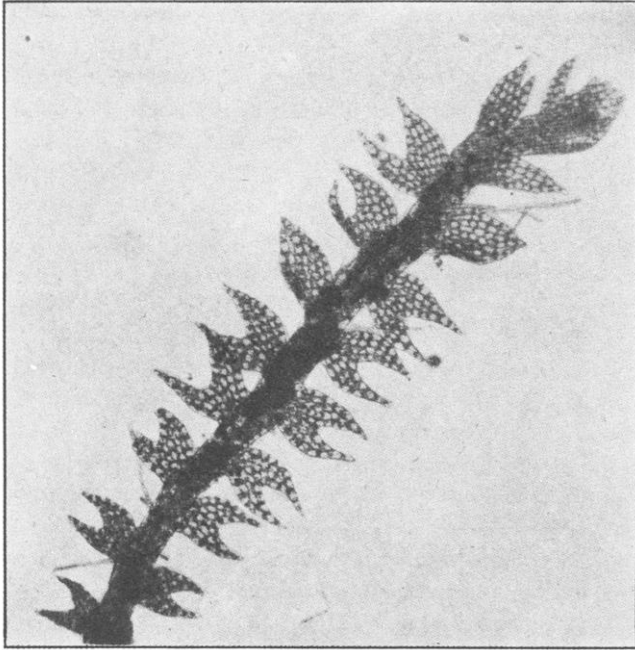


FIG. 1.

### FIVE COMMON CEPHALOZIAS.

HELEN E. GREENWOOD.

Since the identification of the different species of the genus *Cephalozia* sometimes presents difficulties to the student beginning the study of Hepatics, the accompanying photo-micrographs<sup>1</sup> have been made to bring out by comparison the more striking characteristics of each species, especially in regard to shape of leaves, and their method of attachment to the stem. Only the more common forms, those that may be found on every collecting trip, have been figured here.

The Cephalozias are characterized by their small size, delicate structure, the tiny plants having leafy stems, the leaves being more or less round-ovate in shape, and being two-lobed or deeply cleft from one-fourth to one-half their length. They may be found on shaded banks, on damp soil, decaying wood, swampy ground, or growing over mosses or other hepatics.

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<sup>1</sup> These photo-micrographs were taken by the writer in the Biological Laboratory of Clark University, through the courtesy of Dr. C. F. Hodge, Professor of Biology.

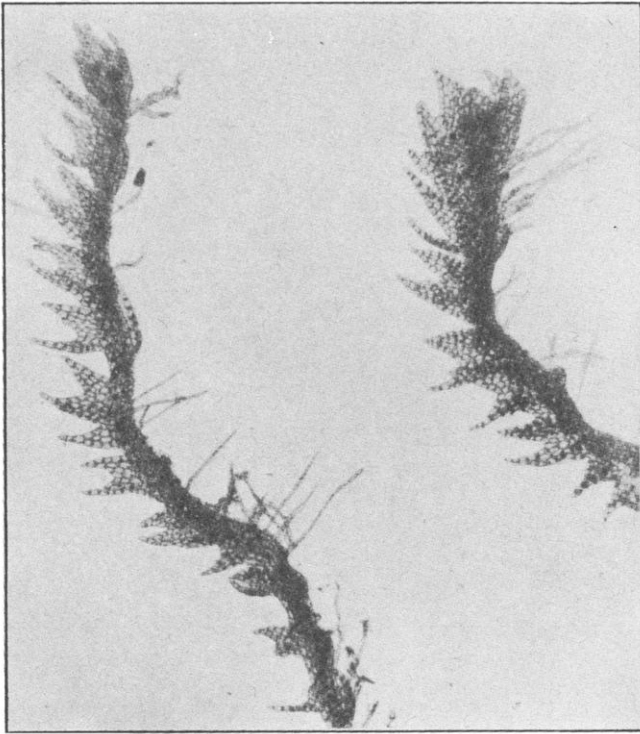


FIG. 2.

For classification they seem to fall naturally into two main divisions, those having decurrent leaves (the leaf tissue extending down the stem below the place of attachment), and those whose leaves are not decurrent.

Of the latter class, leaves *not* decurrent, *Cephalezia bicuspidata* (L.) Dumort , (Figures 1 and 2,) is perhaps the most common species. The plants are either prostrate or ascending, bright green in color, and form a thick mat over damp soil in shaded places, or grow over other hepatics and mosses. The leaves are round-ovate, deeply cleft nearly to the middle, the lobes being straight and scarcely connivent, the lower lobe tending to be narrower than the upper, both lobes being acute. The lower leaves are somewhat smaller and more distant than the upper ones. (Fig. 2.) The natural tendency of the leaves is to fold together along the stem. (Fig. 2.)

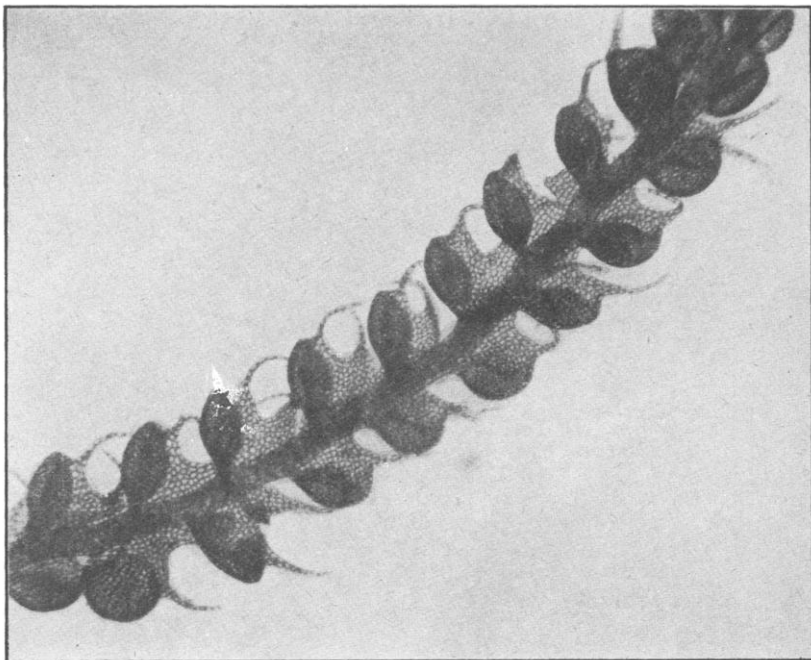


FIG. 3.

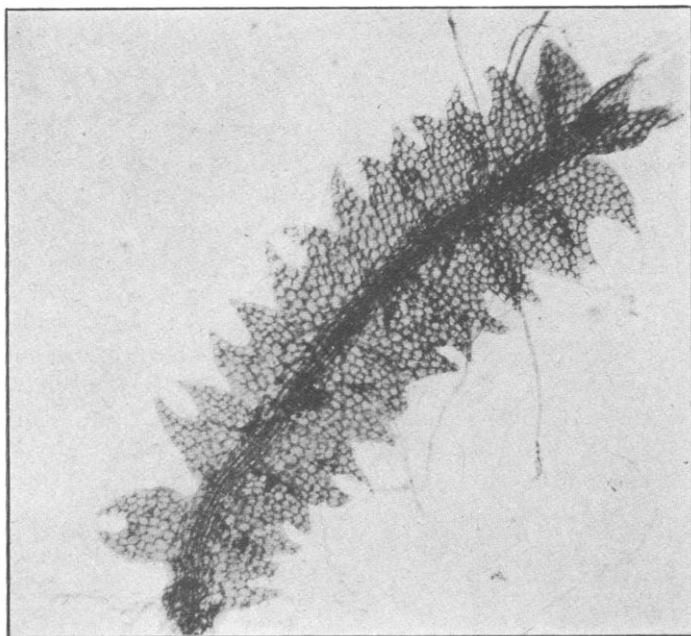


FIG. 4.

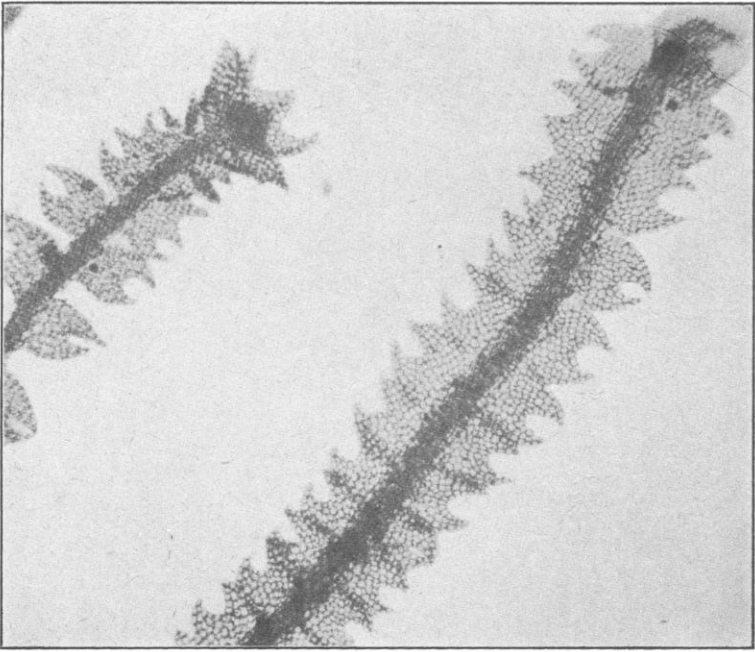


FIG 5.

*Cephalozia curvifolia* Dumort., (Fig. 3.) can usually be distinguished without a lens for the leaves seem to surround the stem rather than to grow out horizontally. The plants are generally found on decaying logs in swamps, and have a greenish to a reddish or brownish color. The leaves are concave, the lower portion folding back upon the upper, seeming to form a kind of sac. The leaves are cleft to the middle or below the lobes, ending in long slender incurved points or hooks. The cells are small and quadrate in shape.

Of the species having *decurrent* leaves, *Cephalozia connivens* (Dicks.) Lindb., (Fig. 4,) shows the least tendency in that direction. These plants may be found in wet swampy land, and can be readily identified by the large size of the leaf cells. The leaves are much more rounded in shape than those of the other species. They are not deeply cleft, the more or less connivent lobes being bordered by a row of cells of uniform size and shape.

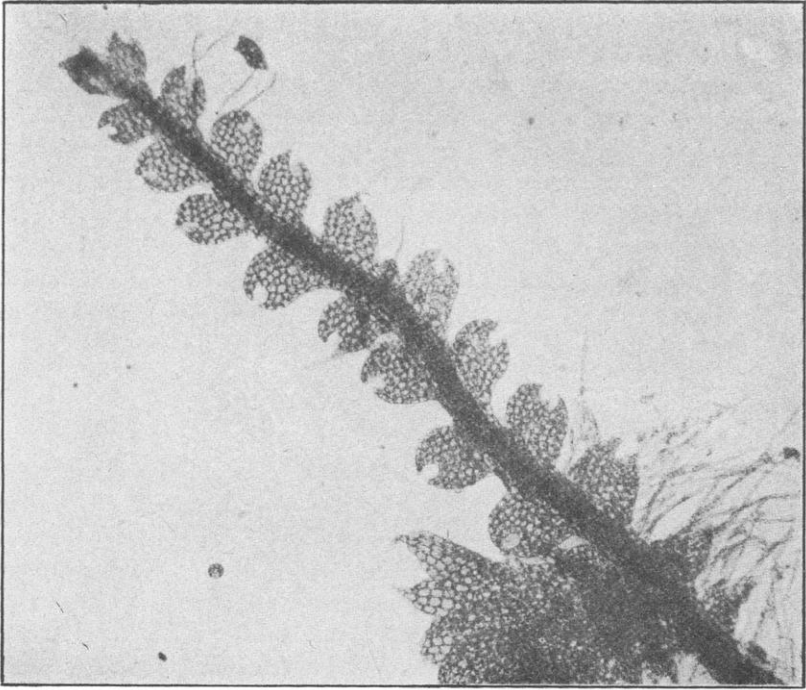


FIG. 6.

*Cephalozia serriflora* Lindb. and *Cephalozia lunulaefolia* Dumort. have distinctly decurrent leaves, the distinguishing points of difference between the two being the following: In *Cephalozia serriflora* (Fig. 5,) which grows on swampy ground or rotten wood, the leaves are rounded in shape and grow out horizontally or at right angles from the stem. They are cleft nearly to the middle, the points of the lobes being acute and more or less connivent.

In *Cephalozia lunulaefolia* (Fig. 6,) growing on shaded banks and rotten logs, the leaves are small, light green in color, and slant obliquely upward from the stem. They are round in shape being bifid only one-third of their length, the cleft being much rounded out so that the connivent points of the lobes tend to meet like a pair of calipers. The plants are of very delicate structure.

Worcester, Mass.